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ABSTRACT

This paper investigates the thematic study approach in theory and practice as it applies to the elementary grades, specifically to third grade. Part 1 defines the theme study approach and explains the theories and assumptions that support it as a viable approach to teaching and learning. Part 2 examines research supporting the thematic approach. It concludes that theme teaching connects the aesthetic with the cognitive and teacher process as well as content. Part 3 examines the specific problems concerning the crowded curriculum and pressures to prepare students for the MEAP test, given in fourth grade, for which third-grade teachers are often held accountable. A full-scale theme study is then described, using the theme of "The Voyage of the Mimi" with the subtopic "whales." Subject areas integrated into the theme included reading, writing, spelling, social studies, and science. Learning activities included in the theme's 13 units are described. The concluding section provides a method for planning and developing a theme study, and presents an example of a theme study planning model using the Michigan Model Core Curriculum to provide the basic structure of the skills and concepts that need to be taught. The paper also includes a 28-item bibliography and two appendixes providing background information on "The Voyage of the Mimi." (Contains 16 references.) (JDD)

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Effectiveness of Thematic Teaching in Curriculum Design and Implementation in a Third Grade Classroom: Including a Planning Process Model Using The Michigan Model Core Curriculum

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Running Head: USING THEMES IN THE CLASSROOM

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There is a growing body of knowledge and recent research in education that suggests that we need to move beyond simplistic, narrow approaches to teaching and learning. In the new paradigm, knowledge is internal and therefore subjective, and optimal learning is accomplished through constructing meaning. Emanating from these theories and beliefs is the revitalization of the practice of thematic teaching. Although not a new concept, organizing instruction through thematic units is gaining momentum, along with the popular emphasis on whole language and the integration of subject matter across the curriculum.

Purpose

The purpose of this paper is to investigate the thematic study approach both in theory and in practice as it applies to the elementary grades, and more specifically to the third grade. Part One explains what the theme study approach is and the theories and assumptions that support it as a viable approach to teaching and learning. Part Two examines recent research that supports using such an approach, especially in the elementary grades. Part Three is very specific to the concerns of the third grade classroom teacher and examines the specific problems concerning the crowded curriculum and pressures to teach to the MEAP test that teachers encounter

at this grade level. It presents thematic teaching as a viable alternative to planning instruction for third grade students. Following this discussion is a description of a full-scale theme study undertaken in a third grade classroom. The overall theme was The Voyage of the Mimi with the major subtopic "Whales". The final section, Part Four, draws some conclusions about the thematic approach based on the research presented and the case study described in Parts Two and Three. It provides a method for planning and developing a theme study in the elementary grades and presents an example of a theme study planning model using the recently published Michigan Model Core Curriculum to provide the basic structure of what skills and concepts need to be taught.

Part One

Defining the Thematic Approach

From a limited perspective a theme unit, or theme study, involves the practice of focusing on a topic of interest and combining several school subjects such as reading, science, mathematics, music and art. An example of this is the proverbial dinosaur unit. Usually in at least two grade levels, students will read a story about dinosaurs, discuss them from a scientific perspective, learn a relevant song, paint pictures, and compare and contrast the sizes of different species. These specific, noncomprehensive themes can be studied for a day, or even a week. Many elementary teachers incorporate at least a couple of these types of themes into their curriculums each year. Themes such as dinosaurs that integrate a variety of content-related activities are of high interest and motivation to the students. However, these units do not exemplify all that is meant by a theme study.

From a broader, more sophisticated perspective, the thematic approach to teaching is a way of conceiving of and of developing curriculum. Theme study is not peripheral to the curriculum. As an overall approach to teaching and learning, a theme study involves an in-depth study of long duration in which a theme or topic is the core focus of

attention. The theme is of high interest to the students; it is not geographically or historically limiting, and it is broad enough to be broken down into subtopics that remain central to the theme. Many traditional subject areas are incorporated into the theme so that learning becomes a focused immersion into a topic from which students make connections and draw conclusions in a meaningful way. The subject areas that connect in a natural way are incorporated. Those that cannot be accommodated in a natural way by the theme are dealt with separately. Carefully chosen theme studies integrate the curriculum in such a way that children no longer study isolated subject areas - the theme becomes the core of what children do in school. The emphasis for the vehicle of learning is on the topic and not the subject or skill area. For example, children may be studying the environment and as a part of this study they are taught how to write persuasive letters. The purpose for learning this skill is to write letters to a variety of corporations urging them to stop deforestation. Theme studies provide real and meaningful purposes for learning. No longer are students given thin excuses for why they should learn. Skills are learned because they are necessary tools for achieving another purpose. The focus of attention is always clear and relevant to the children's lives and experiences.

Supporting Beliefs

Although each teacher who implements a theme study will have a different philosophy about teaching and learning, there are some basic assumptions that lend themselves to the practice of thematic teaching. Jacobs (1989) outlines these beliefs and assumptions that are at the heart of theme study. The first is that all students should have a range of curriculum experiences, involving both separate disciplines and an integration of the disciplines. There is a purpose for both types of teaching. Another belief is that teachers should be empowered to design and shape the curriculum that they will carry out in their individual classrooms. Because the decisions of the teacher have the most direct impact on student learning, the teacher should be active in molding the curriculum to the students' needs.

Another assumption is that an integrated curriculum should only be implemented to solve a problem. Designing a theme study from a fragmented curriculum is a creative way to solve the problem of isolated lessons. Other beliefs upon which thematic teaching is based involve the belief that children should be involved in the development of thematic units and that teachers should provide a sound rationale for the choices being made in their education.

A theme study will not be successful unless the teacher is able to communicate to the students what they are

learning, why they are learning it, and, most importantly, how it fits into the larger scheme of their education and their lives. It is the ability to help children make connections between different areas of knowledge that makes a theme come to life in the classroom. The theme is the structure within which to fit the pieces. It helps define reality and put experiences and knowledge in perspective.

Part Two

A Review of the Literature

Although there is as of yet very little research on thematic teaching per se, there is a growing body of research that calls for relevancy in the curriculum. As knowledge continues to double at a staggering rate, educators who continue to focus only on facts to be remembered and outcomes to be produced may prohibit students' genuine understanding and transfer of learning. In his book, Rethinking Education, Williams (1985) states that "In order to provide us knowledge about the world and its people, we need all our knowledge tied together and we cannot get this coordination from a mere microscopic examination of every tiny part" (p. 17). The conventional methods of teaching and learning need to be changed to meet the needs of todays youth. Children today need to have an overall structure, a way of making sense of the influx of new information that they are faced with. This new knowledge too often falls between the cracks of traditional subject areas (Jacobs, 1989). In a departmentalized curriculum, there is no lasting construct, no central focus, and less meaning to learning. To combat the problems that

exist in many classrooms today, the practice of thematic teaching just makes sense.

There are encouraging movements in elementary education that are headed in the same direction as the thematic approach. These movements are evident within different subject areas and each one is part and parcel to theme studies. All of these new found approaches emphasize process in learning rather than the accumulation of factual knowledge. The whole language approach to reading has gained much attention and is currently being successfully implemented in elementary classrooms across the country. This "whole" approach to language instruction focuses on making meaning within the language arts rather than on phonics and skills. Children in these programs begin with a whole picture and learn how to understand and fit the pieces in. Language then, is no longer isolated from its meaningful, functional use. Goodman (1986) in his book What's Whole in Whole Language, proposes that organizing a whole language program around thematic units provides a focal point for inquiry, for the use of authentic language, and for cognitive development. Language instruction becomes much more productive as students become engaged in relevant activities and have authentic choices. The application of a whole language program within the context of a theme study can break through subject matter boundaries.

Hiebert and Fisher (1990) assert that themes in a language program require not only literature, but also the content of social studies, science, and mathematics so that students can "grapple with interpretations, understand others' perspectives, and solve real-life problems" (p. 63). From the works of Dewey (cited in Strickland and Morrow, 1990) we know that learning is based on the interests of the child and that instruction, therefore, should be manipulative, active, and sense-oriented. Dewey (1966) also stressed the importance of real-life experiences in learning.

In elementary school, children are emerging readers and writers. Language arts is most emphasized in the early grades to build a foundation for later success in other subject areas. The major part of the day is generally allocated to language arts instruction with the social studies, science and mathematics being taught separately. Ideally, according to Dewey's theories, instead of studying separate lessons on particular skills, children study themes of interest to them and learn skills in the process. Integration of emergent literacy skills includes concern for children's interests and their individual differences. It focuses on real-life experiences and is both purposeful and functional. As the whole language approach is integrated

with a theme study children learn the process as well as the content along the way (Strickland and Morrow, 1990).

Developments in science instruction seem to be parallel to the whole language movement in reading instruction. In a whole language program, children learn how to use past experiences and prior knowledge to make predictions and to find meaning in what they read. This process is very similar to the discovery approach in science instruction which moves away from the memorization of facts and vocabulary words and moves into prediction and experimentation. Again, like whole language, the discovery approach in science is a process approach. Students in these programs learn how to access necessary information, set up experiments, and carry out other hands-on activities. The children are free to experience science instead of being required to study written facts. Colvin and Ross (1991) make a case for integrating science and the language arts. Through activities such as keeping a journal, writing directions, and reading and writing nonfiction, students are able to build a conceptual bridge between scientific concepts and their daily life. In going beyond this to the integration of science with all subject areas, the discovery approach to science, when coupled with a theme study can result in even more meaningful learning.

As part of the Mid-California Science Improvement Program, Greene (1991) conducted research in cooperation with the staff at an elementary school in California. The staff had decided that they needed a strategy to integrate science into their overcrowded days. Teachers tended to ignore this significant subject because of pressures to fulfill other curriculum requirements. Each teacher in the building was asked to develop a science-oriented theme for one year with a subtopic for each month. Science then became the fully integrated centerpiece of the curriculum. At the end of the year the impact of the theme study on the students' achievement was evident. Not only did the students' achievement scores substantially increase but the teachers' attitudes toward science instruction also rose considerably. In his description of the project Greene noted that, "The program actually turned the tables on the design of the school day, making science the ingredient that united all other subjects" (p. 43).

Teachers who use the discovery approach to science instruction and the whole language approach to reading instruction in their teaching are concentrating on the thought processes of the students and making their curriculum more relevant and meaningful. The thematic approach to teaching takes this one step further. The above approaches to teaching that focus on process become even

more effective when there is a central focus or theme to tie in the appropriate content (Gamberg, Kwak, Hutchings, Altheim, and Edwards, 1988). Every lesson involves content. The lesson becomes much more meaningful when that content is relevant to the larger context of their learning experiences. The above approaches used in the context of a theme study allow the teacher to focus on the process and the substance. In a theme study students learn the processes that focus on meaning, problem-solving and discovery so as to make sense of the world. Hurd (1991) states that, "A unity of knowledge will make it possible for students to take learnings from different fields of study and use it to view human problems in their fullness from several perspectives" (p. 35).

Aside from teaching both process and content, theme studies make sense because they appeal to the children aesthetically. Teachers often wrestle with the problem of low student motivation. We are continually coming up with new schemes and gimmicks to get our students excited about learning. These schemes and gimmicks are based on extrinsic motivation. In order for students to successfully internalize knowledge they must feel a purpose; the learning must be intrinsically motivating. In order for students to feel intrinsically motivated to learn, they must feel a connection or real purpose for acquiring the knowledge which

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they are being presented. Our concern for teaching the facts has caused us to neglect initiating this emotional connection between those facts and the lives of our students, according to McClure and Zitlow (1991).

Teachers in elementary schools often tend to foster an aesthetic response in reading instruction but neglect to do so in the content areas. This aesthetic response is of paramount importance to the interest level and motivation for learning. In a theme study students are not hurried to memorize or paraphrase. Instead they are encouraged to reflect, listen, savor, explore and contemplate the topic with which they have bonded themselves. Only through these experiences can a child respond to her work with new perspectives and understandings. Encouraging children to view ideas from an aesthetic perspective combats meaninglessness. Themes can provide motivation and stimulate a deeper understanding of what it means to exist in the world (McClure and Zitlow, 1991). Ryan and Powelson (1992) apply the old adage, "You can lead a horse to water....." (p. 63). They suggest that it is the foremost goal of schooling to create thirsty horses and second, to measure their intake. Only when teachers are able to facilitate the internalization by their students of values and interests in learning can cognitive gains be realized. Emotions and cognition cannot be separated because the

conjunction of the two is at the heart of learning. By implementing high interest theme studies, teachers can motivate and actively involve their students in meaningful learning.

Perhaps the most important body of knowledge that supports theme studies is that of recent findings in neuropsychology as it applies to educational methodologies. Recent research on the human brain and how it uses information, emotion, nutrition, perception and communication to create understanding gives us greater knowledge of how people learn. This brain research challenges the belief that the cognitive, affective, and psychomotor domains can be treated separately in teaching. In their book, Making Connections: Teaching and the Human Brain, Caine and Caine (1991) emphasize interdisciplinary education and thematic teaching as ways to immerse students in knowledge. A brain-based approach to teaching and learning coincides with theme studies. A brain based approach to teaching recognizes the brain's infinite capacity to make connections and to understand information and then organizes a program that maximizes that process. One of the factors in the brain's capacity to process information is that the brain searches for common patterns and connections. The brain has an extraordinary capability to detect patterns and to make approximations. The brain

constantly searches for how things make sense, attempting to find meaning in all experiences. A theme study assists the students in patterning information and therefore directs their search for deeper meaning. According to Caine and Caine, this type of teaching takes students beyond the surface knowledge of rote memorization and forms a familiar schema within which to embed new information.

Another important factor of brain based learning is that every experience actually contains in it the seeds of many other disciplines. Generally, literature, mathematics, science, and social studies are viewed as separate disciplines and unrelated to the life of the learner. From a brain based and thematic approach, what happens in the classroom cannot be unaffected by the real lives of the children outside of school. The different subject areas relate to each other and share common information that the brain can recognize and organize. It is the teacher's responsibility to orchestrate learning experiences that facilitate this patterning and organization in the brain. A theme study, by immersing the learner in topics of interest, expands both the quantity and the quality of exposure to the content. Caine and Caine (1991) liken this total immersion to a child playing a video game. The child enters the world on the screen and becomes totally engrossed in manipulating the important variables. Immersion into

themes offers similar multisensory representations in the combination of feeling and thought.

A third factor to be considered in brain-based learning is that one of the keys to learning is what is technically called reiteration. This is not in reference to the reiteration of factual information but in reference to presenting learners with several perspectives of a certain topic. For instance, learning about science just from a science book is not conducive to the internalization of the knowledge presented. Learners need to be exposed to the application of science in many other situations and subject areas. By doing this the richness and meaningfulness of the learning comes to life.

Teaching in themes makes sense. It is brain-based, it connects the aesthetic with the cognitive, and it teaches process as well as content. In the real world, children and adults alike have thematic maps sketched into their life experiences. We all exist as part of an interconnected pattern of significant life themes such as the need for relationships, religion, friendship, or personal independence. We make sense of our lives and our everyday experiences based on these themes. Themes in our lives provide us with the courage to hope, the motivation to endure, and the stamina to succeed. It makes sense then,

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that we can lead students to optimal learning through the use of themes in the classroom.

Part Three

Using Themes in the Third Grade

Every grade level at the elementary school is distinguished by its own unique characteristics. The first and second grade levels are clearly marked by heavy emphasis on fostering language development, facilitating the acquisition of problem-solving skills, and enhancing self-esteem and the motivation to achieve. Teachers and curriculum developers take great care in aligning these curricula with accepted child development practices.

The developmental period from roughly eight to ten years old, however, seems to get less attention by developmental and educational theorists. The third grade is often a year marked by difficult transitions. Children at this level become "kids" as they adapt to increased pressures in a new environment of socially and academically challenging interactions. It is a year that bridges the primary years with the higher expectations of the intermediate grades. Educators haven't, as of yet, classified the third grade as either a primary or an intermediate grade. Whether or not third grade is grouped with the first and second grades, or the fourth and fifth grades seems to be a matter that is

left up to the preference of the individual teacher and textbook publisher.

Academically, major changes occur at the third grade level. Prior to the third grade children learn to read. In the third grade they are expected not only to read, but to read for various purposes. There seems to be a major difference in orientation. Whereas the school day in first and second grade is primarily devoted to language arts instruction, reading is but one of several subjects taught in the third grade. Teachers at this grade level are challenged with a very crowded curriculum, and children entering the third grade are faced with increased expectations. Science, social studies, mathematics and a myriad of other curricular components become more emphasized in the third grade.

With the increased emphasis on content, there is also a heavier emphasis on achievement. In the school district in which I teach, third graders are given two standardized tests. The first is intended to measure their ability and the second their achievement level. Third grade teachers feel a heavy responsibility to prepare their students to take these tests. Low achievement scores may, fairly or unfairly, reflect unfavorably on the teacher. There is also pressure on a third grade teacher in Michigan to prepare students to take the MEAP test. Although this test is

administered in the fourth grade, it is often the third grade teachers who are held most accountable. Third grade teachers tend to succumb to this pressure, and begin to correlate their competence as effective teachers with the test scores of their current and previous students. This often leads to a tendency for third grade teachers to teach-to-the-test.

Because of the nature of the curriculum, third grade teachers often follow a pattern of direct instruction of the basics. There is so much material to cover and teaching each subject in a specified block of time seems to be an acceptable way of delivering instruction. By teaching each subject separately, teachers feel they can more easily account for the outcomes to be achieved and keep track of each child's progress. This daily routine of seemingly unconnected basic skills, however, is often too insipid for curious, active third grade children. When this rather disjointed approach is used exclusively, children tend to become bored and may even grow to dislike school. In order to achieve optimal learning, third grade children need to experience excitement and success in school. Too rigorous a schedule of separate subjects may not be conducive to success and learning for all third grade children.

As an alternative to this, I have found that integrating the subject areas in the curriculum around a central theme

makes learning more meaningful for the students. They become much more involved in and excited about school. By integrating the content areas, third grade teachers can help children make a smoother transition into the intermediate grades. It is an approach to teaching that makes sense, for the teacher as well as the child. The thematic approach helps to prepare students for the new reading and math MEAP test because it is a discovery, hands-on type of approach and accommodates the similar approach taken in the testing. Like the material which is tested in the MEAP test, the thematic approach focuses on teaching children find meaning in and apply what they are learning. By using theme studies I have found that I am actually able to accomplish more of the curriculum than otherwise and my students become more excited about learning and achieve at higher rates.

The Theme Study Approach - A Case Study

The theme study described herein was developed and implemented by my third grade teaching partner and myself. We both had similarly constituted heterogeneous classes of third grade students and taught in adjoining rooms.

The most important factor, I feel, in enabling this theme study to be successful is one that is common to elementary schools - flexibility. We were able to forego the need for a structured balance of activities on a daily basis. We were able to make daily decisions to focus heavily on one area if necessary, knowing that the balance would shift at another time. We were also open and alert to unexpected opportunities. These opportunities did arise and we were able to cut out some daily routines to fit them in. We did not plan our teaching around tradition. We planned according to the children's needs. When those needs changed, or when someone came up with a new idea for fulfilling them, we were ready to change our everyday routines to accommodate the changes.

The third grade class in which this theme study was conducted, and to which I will be making continuous reference, was my own class of 24 children. Generally the students represented middle class, suburban backgrounds.

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The children in the class had a range of abilities and interests such that the composition of the classroom could be considered average or in a normal range. Our school is in a well-respected, progressive district. The parents of the children in my class were basically very supportive of the theme study and willing to participate when needed.

Choosing and Planning the Theme Study

As a way of integrating computers into the curriculum, I was introduced to The Voyage of the Mimi at a district workshop. The Voyage of the Mimi is a video series that consists of thirteen 15-minute episodes in a continuing adventure/drama, and thirteen 15-minute documentary-format segments called expeditions. The two modes were designed to alternate, one dramatic episode followed by its companion expedition. The series was produced by the Bank Street College of Education in New York City as part of the Bank Street Project in Science and Mathematics. This series has, as its major component, computer software that enhances and applies the concepts taught in the video.

I used the video and the software in my classroom and the children loved it. The days each week that we watched the video and learned a new computer program seemed to be their favorite days. They couldn't wait to see the next video segment and it became apparent that they were learning

a lot and sharing this knowledge with others. They began to use this new knowledge in conjunction with the accompanying computer programs. Some of the children who had never chosen to use the computer before were waiting in line for their turn.

The Voyage of the Mimi shows characters using their knowledge and skills in real-life situations. The characters are well developed and each one appeals to children of all ages. The series is centered around science. The dramatic/adventure storyline is about the people and events on a research voyage to study Humpback whales in the Gulf of Maine. It depicts what science is and how scientists think about the world and seek to answer questions about its workings. The purpose of the drama is to provide a compelling context within which to exemplify science as a worthwhile enterprise and scientists as real people who care about the same things that we do.

The documentary-format expeditions are visits to places where interesting people are doing work that relates to an aspect of science or other topic touched on in the dramatic episode. Hosted by one of the young actors from the cast of the dramatic series, the expeditions show how real people are working in the world with the ideas and issues featured in the fictional context of the drama. For example, one of the characters in the episode is a deaf scientist. The

related expedition that the series takes viewers on is to Gallaudet College, a school for the hearing impaired.

As I began to use this program in my classroom it became difficult to fit it in with other curricular obligations. Because of its basis in science, I began to substitute it for "science time" only to feel guilty about not getting to the textbook. As I discussed this problem with my teaching partner, I found that she was having the same difficulty. We were both showing the videos and teaching the computer programs but it left us feeling frustrated. We felt that we were just doing the minimum in all areas because of time constraints. We needed to find a way to fulfill our obligation to the curriculum and at the same time allow our students the benefit of this unique and educational program.

Although we knew that theme studies don't necessarily mean that there will be time for everything, together we embarked on a plan to integrate our curriculum with The Voyage of the Mimi, making the program the central focus. Our theme became the Voyage of the Mimi, with the major subtopic "Whales".

Making Connections

My teaching partner and I spent countless hours developing a plan for this theme study. We compared our third grade student outcomes with the objectives of The

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Voyage of the Mimi program and found many areas where connections could be made. As we were planning for the following year, we felt that it was very important that the children get a sound foundation in all of the different subject areas before we plunged into integrating them. For this reason we made arrangements for our theme study to begin in January. We made a chart for each subject area of all the prerequisite skills and concepts to cover during the first part of the year, prior to beginning our theme study (see Appendix A for a listing of prerequisite material).

Although we could only estimate how long it would actually last, we planned the theme study in thirteen units. We organized each unit around one video episode and its corresponding expedition with the understanding that some units might overlap others.

Theme Study : The Voyage of the Mimi

An Overview

Each unit is correlated with an area of study from the content and language arts areas. Throughout the study we used the textbooks in each subject area as references and guides. We did not attempt to deviate from them entirely. All subject areas were integrated into the theme except for math. Although we used math often and applied it in many different projects, we taught math separately everyday. The following is a description of how each subject area fit into the larger scheme of this theme study (see Appendix B for a detailed outline).

Reading

Reading was the subject that was most easily integrated. We read several novels that related to the topics we were learning about. Along with the novels, the children also enjoyed reading from their reading textbooks. One section of our basal reader is titled, "Mysteries of the Deep" and consists of a variety of readings related to the ocean. Aside from these novels and stories, the children each had their own The Voyage of the Mimi text. This book is a written version of the video. Each episode and expedition

is written in narrative form. The children enjoyed reading the storyline prior to watching the video. The classroom was filled with informational books on many different topics. The children learned how to use reading skills and strategies to understand what they were reading as well as to extract important information. Our reading program during this theme study offered opportunities for unlimited proficiency as the children utilized all types of texts and genres for enjoyment and for information.

Writing

Prior to beginning the theme study, the third graders had become acquainted with the process approach to writing. During the theme study the children wrote everyday for various purposes and in various forms. The children were given many creative writing opportunities as well as informational writing. Each student kept what we called a "ship's log". This was a personal journal which the children wrote in daily.

Spelling

The spelling assignment for each week consisted of sentences that related directly to the topic under study. Sometimes I would take the sentences from the Mimi text. The children, as well as the parents, appreciated having

meaningful sentences and looked forward to finding connections between their spelling assignment and that week's learning.

Social Studies

Social studies fit right in with the various topics that our theme addressed. We were able to teach many geographical concepts as well as some history and sociology. The characters of The Voyage of the Mimi provided us the opportunity to research and discuss different cultures and ways of life. We were also able to examine human relationships in a meaningful way. One character, Arthur, is an African-American high school student from the Bronx. Another, C.T., is an eleven year old boy. C.T. is the grandson of the Captain and sees his grandfather and the ocean for the first time. Rachel, another interesting character, is upset over her parents recent divorce. All of the characters are complex and, in their own way, become role models for the children.

Science

Science was the mainstay of our theme study. There were numerous opportunities to connect the knowledge in our third grade curriculum with that of the topics being studied. Science became exciting and rewarding for the students.

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Along with the science curriculum, the students became quite adept at using the computer. The computer was used as a tool for both writing purposes and to work with the many programs associated with The Voyage of the Mimi. The computer programs that accompanied the theme study varied in levels of sophistication. This made it possible for all students to find success.

The following is a description of the thirteen units of study we undertook as well as some activities that we found important. The description follows the sequential format of The Voyage of the Mimi. Because this video series addresses a variety of topics, our theme study may seem scattered and rather laborious to the general reader. For that I am apologetic. however, I feel that it is important to describe our activities in this sequence because that is how we experienced them. This organization may also serve the reader in providing an understanding of the way in which the children were able to make connections and build on previous knowledge. Some of the projects I describe lasted a couple of days and some up to a month. The time allotments do not matter. As the voyage progressed, we built a conceptual map and continually added new information. By organizing the description in terms of the sequence of this voyage, it is hoped that it may be of most benefit to elementary teachers.

Introducing the Theme Study

I had set up the classroom environment prior to the children returning in early January. As they entered the room they noticed that all of the bulletin boards had been covered with blue material. The name tags on their desks had been changed to a whale pattern, and their bathroom passes were also in the shape of whales. We began by making a chart of everything they knew about whales and the ocean. We kept this chart hanging in the room and added to it regularly.

Unit One

With Episode and Expedition One the children became very excited about the theme, the storyline, and the characters. After viewing part one, the third graders were very intrigued with one of the characters who is deaf. The video deals not only with her problems in communication but also with other people's perceptions of her disability. We read and studied the novel, Helen Keller, looked at other biographies of people with disabilities, learned the alphabet and The Pledge of Allegiance in sign language, and had a guest speaker come in to tell us about teaching hearing impaired children.

As all of this was going on, we were also embarking on our study of the ocean. The room was filled with informative books about all aspects of the ocean. The children formed groups and began a research project on a topic of their choice. Each group worked on researching information on their topic, writing rough draft reports, and polishing the rough drafts for their presentation. This project fit in perfectly with one of our English units on conducting research reports as well as several strategy lessons on reading expository text. As the children listened to each other present their reports, they were amazed at how much they had learned. The topics that the groups had chosen came from the concepts in Expedition One. The areas covered were, the work of marine biologists, what mammals live in the ocean and how they have adapted to a marine environment, and how the ocean affects our daily life.

As we brainstormed ways to make our classroom reflect our study of the ocean, the children suggested that we hang light blue and dark blue streamers from all corners of the ceiling to make it look as if we were having class under the sea. After the streamers were hung, the children painted fluorescent fish to hang and worked diligently on a sizable Humpback whale which we hung in the middle of the room. When they were finished we had visitors from all over the

school come to see "our ocean". From this point on our classroom was alive with excitement and no bulletin board ever went unused.

Unit Two

In Episode Two, some of the characters on board the Mimi learn how to manage a sail boat. We studied the history of sailboats and their purposes, learned some sailing terminology, and had a parent come in as a guest speaker to tell us about his experiences with sailing. One group of boys made a sailboat from scraps of wood and we experimented using fans and a large tub of water to see if it would sail.

Also in Episode Two the scientists on board the Mimi learn how to identify each Humpback whale by the pattern on its fluke, or tail. From this we launched into a series of activities on fingerprinting. The children learned that fingerprints are one way to identify individual people. With magnifying lenses the children studied the three most common fingerprint patterns and then classified their own. We learned about the job of criminologist and why fingerprints are important to them. The children had fun in a "who-done-it" activity where they were required to use deductive reasoning, along with their new knowledge to catch a hypothetical bank robber.

From the Save the Whales Foundation I had received a catalog of whales that were up for adoption. The children voted on their favorite fluke and we adopted a real whale named Fringe. Fringe was later spotted by the crew members of the Mimi. This verification that Fringe is a real whale made the adventure of adopting him even more real - bigger than life.

Expedition Two describes the different species of whales. Each student chose a particular whale, did some research and prepared an information card. The card consisted of a list of facts about that whale, and illustrations. These cards were placed in a container and we kept them in our classroom library. The students referred to them often for information or just for fun. These cards were later used when the children wrote stories about a whale in which they included several facts.

Unit Three

In Episode Three, the crew illustrates the use of navigation charts and electronic navigational instruments to find the ship's position. I showed the children the navigation map from The Voyage of the Mimi and we hung it in the room, plotting the trail of the Mimi with each episode. As the third graders already had a clear understanding of basic maps, we were able to learn how to read navigation

maps on a simplified scale. This also led into a study of different types of maps. Some of the children drew scaled maps of the playground while others made maps leading to hidden treasure.

The third expedition shows students how scientists go about mapping the ocean floor. The students were very intrigued to learn that most of the ocean remains a mystery. We constructed a model of what we thought one part of the ocean floor may look like with various sized mountains and valleys. The children then put it in the bottom of a large tub that represented the ocean and measured the different depths. After adjusting their measurements to scale, the children painted their model using the colors that the real scientists used to depict different depths.

Unit Four

In Episode Four the crew reads the journal of a ninteenth-century whaler. This topic was a delicate one as the children had already grown to love whales. We found some information and briefly studied the history of whaling, focusing on the purposes for which whale bodies were used. From this the children became very interested in all endangered animals. Each student chose a favorite endangered animal, wrote a report and illustrated it with pictures found in old magazines.

Expedition Four described the evolution of whales, from land-dwelling dog-like creatures to marine mammals. We followed this program with a discussion of the theory of evolution as opposed to the theory of creation. Many children later brought in fossils and we began to research different types of rocks. Each student made a fossil from plaster of paris and wrote a story telling of the life history of their fossil.

Unit Five

Episode and Expedition Five deal with the feeding and migratory patterns of whales. We constructed in the hallway a floor-to-ceiling map of the world and labeled the continents. We used this map to trace the path of whale migration. To show this path we cut out patterns of whales and attached them to the map using arrows to show which way they were headed. The children made symbols for the feeding grounds and the breeding grounds. This exploration also led to some curiosity about habitats around the world. From our science text and other resources we studied and made models of different food chains and food webs. We also examined in depth the different habitats and ecosystems found in the world. The children made diaramas of different habitats, including the plant and animal life found there. These

diaramas were displayed, along with a detailed list of facts, in our school library.

Unit Six

Episode and Expedition Six focus on whale songs; how they are recorded and analyzed as well as the roles of the hydrophone and spectrum analyzer in whale song research. The children had fun listening to whale songs and recording them on an imaginary spectrum analyzer. Even more fun was writing down what they thought the whales were communicating in their songs. The final products looked somewhat like sheet music. There is also a companion computer program that we used to experiment with the properties of sound.

Unit Seven

Episode Seven describes how scientists track the movements of a whale using suction-cup radio tags. We discussed why it was important to be able to track the movements of Humpback whales since they are an endangered species. After teaching the children how to format and write letters for different purposes, each student chose an organization associated with whale research, such as Greenpeace, and wrote to them asking for any free, available information on whales. The children were delighted to bring

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in the mail they had received and share it with the rest of the class.

Expedition Seven took us on a trip to Gallaudet College for the hearing impaired. As the children were, by this time, almost experts in signing the alphabet, they enjoyed trying to keep up with the words that the deaf people were signing. The children used sign language in the classroom in many ways. For many of them, signing was a way of studying and remembering the most difficult spelling words. For others, signing became a sneaky way of communicating with friends during silent reading or other quiet times. Two children from the class found books on sign language and taught themselves the signs for many common words. At a school assembly we were able, as a class, to stand up and sign The Pledge of Allegiance. All of the children were very proud of themselves and seemed to feel that they had learned something very useful.

Unit Eight

In Episode Eight the crew learns the safety precautions they must take if there is a storm. Expedition Eight takes us to the Mt. Washington Observatory where, scientists claim, you will find the world's worst weather. At the observatory, scientists explain the work of a meteorologist and the factors that contribute to extreme weather

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conditions. In class we launched into a study of water and weather. We made water fact books, as a take-off from The Magic Schoolbus at the Waterworks, designed illustrated diagrams of the water cycle, and carried out many experiments on water from our science text. In our study of the differences between salt water and fresh water, we read about and saw a video on Humphrey, the Wrong Way Whale. Humphrey is a real whale who took a wrong turn and ended up in fresh water. Many concerned citizens joined in the attempt to get Humphrey turned around and back to the sea. The video showed this successful rescue attempt as it was happening. After reading the story and viewing the video we discussed in depth the differences between salt and fresh water. From our study of water, we launched into a study of weather. We made weather charts, studied the different types of clouds, and videotaped mock news reports forecasting the weather.

Unit Nine

In Episode Nine the crew battles a severe storm at sea. The captain is thrown overboard by a large wave and, as a result, develops hypothermia. Expedition Nine explains the human body's mechanisms for regulating body temperature. It also explains what hypothermia is and how it is caused. This led us into a discussion of safety precautions for

different situations, as well as a brief study of health and the human body. Prior to our theme study the children had completed the Growing Healthy program. This prior knowledge was very important as we then began to apply it in different ways.

Unit Ten

In Episode Ten the crew of the Mimi is shipwrecked on a deserted island. After saving the Captain's life, the crew sets out to find fresh water. When they are unable to find any they build a solar still to make fresh water. Expedition Nine follows with a demonstration of how to make fresh water by freezing sea water. In class we constructed a solar still and used heat lamps and other variables to manipulate the concepts of evaporation and condensation that we were learning about in our study of the water cycle.

Unit Eleven

In Episode Eleven the crew forages for food on the deserted island. They find edible plants, staying away from the poisonous ones, and the young boy is able to spear a rabbit. The crew is very proud of their knowledge and skills as they enjoy "the feast". They talk about how they had applied their knowledge in order to survive. The

accompanying expedition presents a rationale for organic gardening and explains the principles of solar heating. After watching this part of the video, the third graders were ready to start planting. We read about and studied plant parts from our science text. The children experimented with growing seeds using different variables of soil,temperature, light, and water. We visited a greenhouse and talked with the owner about how he cared for his plants. One group of children researched and made a list of poisonous plants to stay away from.

Unit Twelve

In Episode Twelve, the crew is able to rebuild the Mimi and they leave the deserted island, heading for home. Expedition Twelve shows the application of math in boat design and presents a step-by-step procedure of constructing a boat from wood. Using this information, the children used their measurement skills, as well as other mathematical operations, to make a blueprint of a ship.

Unit Thirteen

In the last episode, Episode Thirteen, the Mimi arrives back at Glouchester, Massachusetts, and the crew members say goodbye as they go their separate ways. The voyage has been a success and the members communicate the need for ongoing

scientific research. In Expedition Thirteen, the captain, whom we had all grown to love, reveals himself as a real sailor and a real scientist. He discusses his role as a scientist and illustrates and explains some scientific principles dealing with magnetic force and nuclear fusion.

The children were very disappointed that the voyage was over. The voyage, as it applied in the classroom was not over, however, as we were still in the middle of many projects. When we were ready to wrap it up, the students each made a "save the whales" poster and wrote a speech to go along with it.

I had planned to have a parent presentation day where we would invite the parents in to "show off" all of the projects we had been involved with, perform some skits, recite the speeches, and sing some songs. I was not able to do this, but we were able to share what we had done with other classes in the school. Time constraints and other various circumstances made it difficult to carry out all of the extensive plans that I had initially made. In the end it didn't really matter though because the theme study had been an exciting and richly rewarding experience for all involved. For field day, at the end of the year, the children each painted a mother whale and her calf on the front of a T-shirt. The backs of the T-shirts each carried the signatures of every student in the class, with a large

slogan at the top which read, "I Had A Whale Of A Year In Third Grade"

Part Four

Discussion

The results of the theme study, The Voyage of the Mimi, described in Part Three, are numerous. Since a detailed description of the results entails a hefty agenda, it may be more appropriate to suggest the general direction of outcomes achieved. These general outcomes viewed in relation to the review of literature in Part Two provide a cohesive foundation from which to build a justification for thematic studies in any classroom.

Although the foregoing case study is extensive and may be too ambitious for many, the results show that it was successful in many areas of student learning. The most obvious gain was in the students' mastery of both skills and content. All skills were taught in relation to the content so that the students were able to apply what they were learning in various situations. The content from different subject areas was integrated into work that was purposeful and therefore interesting. In this rich context of learning, neither skills nor content was shortchanged.

Besides developing conceptual understandings of the topics, the students learned to appreciate and enjoy the experiences of learning through discovery and application.

As they learned to use what they know as a foundation upon which to build new learning, they became more attentive and discerning listeners and more articulate in expressing themselves as speakers and writers. This theme study aided not only in content retention, but also served to initiate hobbies and interests outside of school.

The students in this study also showed improvement in their thinking and learning skills. Due to the concept mapping and other knowledge-weaving activities in the integrated theme study, the students showed an increased tendency to view circumstances and events from a broader perspective. To a considerable extent, the students gained control of their own learning as they learned how to plan and organize projects. The collection and recording of information and ideas helped them begin to understand that many pieces fit into the larger picture of any issue or circumstance. Because of the extensive and varied practice in analyzing and questioning, the students learned to become independent and critical thinkers.

Contributing largely to the success of student learning and the theme study as a whole was the enthusiasm and remarkable motivation exhibited by the students toward their learning experiences. This enthusiasm was evident not only in the way that they approached their work, but also in the way that they interacted socially with each other.

Participation in small group and whole group discussions rose steadily as well as did the appreciation for individual diversity. Through group arrangements, the children developed an appreciation for cooperation as an efficient, effective, and pleasant way to work and learn. The common bond of our theme provided the basis for students to better understand the views and feelings of others.

Through groupwork the students learned that they can be useful and contributing members of a team. Their self-esteem blossomed as they developed confidence in themselves as learners and decision makers. Parents also took a more active role in classroom activities. Many parents verbalized their enthusiasm for our theme study and even commented that their children enjoyed school more than ever before. One parent went on a whale watch in Hawaii and then donated a photo album filled with pictures of whales to the classroom. The parent support for the theme study was very important as it provided the students with a positive frame of mind toward learning.

The theme study was a positive and rewarding experience for the students and their parents. My teaching partner and I also felt a renewed interest and enthusiasm for school. Although the planning and implementation took countless hours of preparation, we found that we were able to use our time with the children more effectively. Teaching from a

thematic approach did not leave us with unfinished business. We were able to fulfill the requirements of our curriculum. In fact, after using the thematic approach, we felt more sure of our students' achievement than we had in previous years. Most importantly, from a teacher's perspective, we felt personal and professional pride in our work. By working closely together, we abandoned the notion of "cookbook teaching" and used our knowledge and resources to create a rich and meaningful educational program based on the needs and interests of our students.

The results of the theme study based on The Voyage of the Mimi support the research that encourages an integrated approach to teaching. By using the thematic approach teachers can cover both process and content material as well as involve students in an active, manipulative and rewarding learning environment. Theme studies motivate children and enhance their learning experiences in a meaningful, memorable way. By integrating the curriculum around a central topic of focus, educators can best accommodate the brain's tendency to make connections in understanding and organizing information. According to Caine and Caine (1991), the brain seeks out patterns and searches for some meaning in experience. All of us make sense of our lives in relation to different themes. Using the thematic approach

to teaching helps children reach their potential in learning as they begin to understand the world around them.

Theme Studies and the Core Curriculum

Most of the research on theme studies has been conducted in private schools where teachers do not feel strong pressures to adhere to a set of curriculum guidelines. Planning a theme study, however, does not necessarily mean that a new curriculum is established to accommodate the theme. The thematic approach is one way to make sense of an existing, mandated curriculum. It requires considerable effort by the classroom teacher, but as can be concluded from the above discussion, the effort is well worth the rewards. In public schools in Michigan teachers are expected to teach a curriculum that has been previously established by the local school board. Each district's curriculum is required to be in compliance with The Michigan Model Core Curriculum adopted by The Michigan State Board of Education in 1992. This core curriculum is based on the needs and current problems in the larger society. With the "back to basics" movement and the fact that knowledge is growing at an explosive rate there seems to be a trend to put more and more responsibility on the schools and ultimately on the classroom teacher. Since the school days are not getting any longer, this core curriculum puts pressure on the school calendar. Educators have traditionally responded to this problem by dividing the

school day into blocks of time to teach different subject areas. This type of organization seems to be the most efficient way to follow the state and district curriculum guidelines and monitor teachers in completing the long lists of items and subskills to be "covered" for each subject area. This type of curriculum organization, however, leads to fragmented learning experiences for the student.

The word "core", as defined in Websters 7th Collegiate Dictionary, means "an arrangement of a course of studies that combines under certain basic topics material from subjects conventionally separated and aims to provide a common background for all students". Throughout the course of time this definition has been forgotten or avoided and no longer applies to the core curriculum as we know it. The Michigan Model Core Curriculum is not organized by topic but by discipline. It does not accommodate an interdisciplinary or thematic approach to teaching. The content of the core curriculum is spelled out in a way that is fragmented, and largely incomplete when translated to individual teachers and students.

Perhaps the most effective alternative for accomplishing the requirements within the fragmented organization of the mandated core curriculum is through the thematic approach. Themes allow for the organization of seemingly disjointed topics. This approach does not avoid dealing with the

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specific subject areas; rather it creates relevant learning experiences that demonstrate the relationship of the subject areas within the core curriculum. The student outcomes described in The Michigan Model Core Curriculum are based on The State Board of Education's Essential Goals and Objectives. This document recognizes the lack of an integrated structure, yet encourages teachers to use an interdisciplinary approach. It states that, "Since the goals describe only the desired outcomes of learning, the choice of means for accomplishing the goals remains with those who must implement them.....The goals represent both broad content areas and concepts and should all be viewed as interdisciplinary" (p. 5). The core curriculum, while encouraging teachers to use an integrated approach to teaching, does not lend itself to this type of teaching because of its organization. Because it is difficult to apply the core curriculum in day to day instruction, it is often a document that gets put into the circular file while classrooms continue their usual routine. The following suggests one way to use the core curriculum to design theme units. These theme units integrate the different subject areas of the curriculum to make learning meaningful and purposeful for students.

Planning a Theme Study

The following example of a theme study planning process utilizes the Interdisciplinary Concept Model as described by Jacobs (1989). It is a plan designed for a third grade classroom. The theme "Where Have We Come From - Where Are We Going?" was chosen although any number of themes could be appropriately implemented at this grade level. Some optional themes may include, families, transportation, the future, the ocean, etc. It is important for the theme to be broad enough so as to accommodate many central topic areas. It should not, however, be too all-encompassing nor too narrow in its parameters. Perhaps one of the most important criteria to meet in selecting a theme is that it is of high interest to the students and not likely to lose its flavor over time.

Planning Wheel

In following the Interdisciplinary Concept Model, the first step is to select a theme and the second is to brainstorm associations to the theme in each of the subject areas. This brainstorming is done on a spoked wheel with the theme being the hub of the wheel and each subject area to be addressed as a spoke.

Guiding Questions

After the brainstorming of associations, guiding questions must be established. These questions will serve to provide a scope and sequence for activities within the theme study. These questions may be likened to chapter headings in textbooks. What follows in each chapter addresses the chapter heading as well as builds on the concepts presented in previous chapters.

Activities

From the guiding questions come ideas for relevant activities and learning experiences. It is important to keep in mind the importance of providing a variety of learning experiences that involve concepts and processes from many areas of the curriculum rather than planning activities that are isolated in relation to other subject areas.

An Example

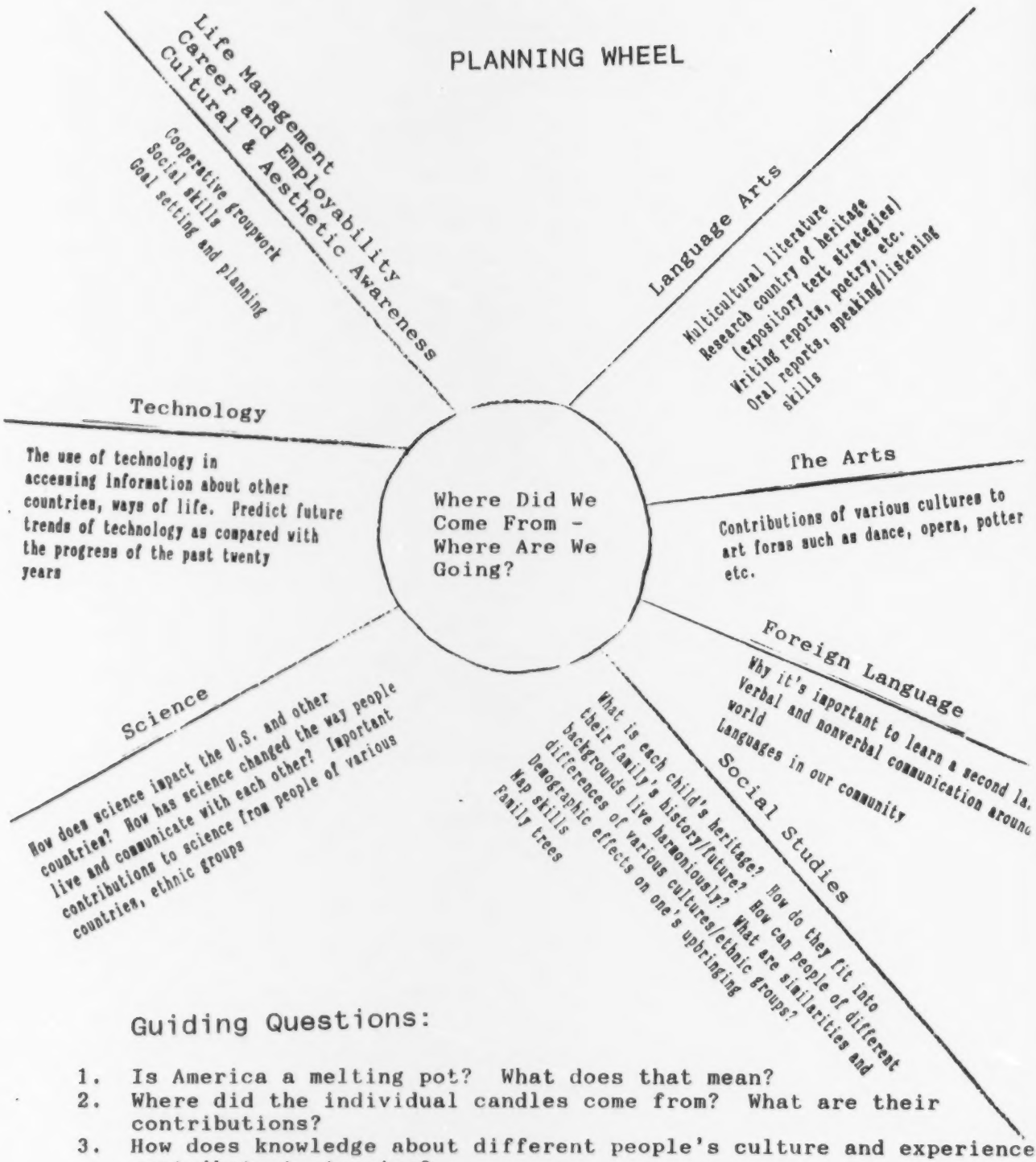
The following is an example of the above planning process. It includes a planning wheel with various subject area associations to the theme. From that wheel some guiding questions are proposed for developing a scope and sequence in the activities. The example then deviates from

the Interdisciplinary Concept Model to incorporate student outcomes. The outcomes listed come from The Michigan Model Core Curriculum. They are listed by subject area and were chosen for their appropriateness to third grade as well as to the theme. Alongside the outcomes is a list of corresponding activities that could be used to achieve the various outcomes. Most of these activities, although listed in a subject area heading, can be used across the curriculum. The areas of Mathematics, Physical Education, and Health were not included as there did not appear to be natural links between the content and the theme. Even though all of them could have been incorporated on some level, it did not seem appropriate to do so considering the classroom for which this theme study was planned.

Planning a theme study is not difficult in itself, although it does take some time and thought. There are several ways in which content material may be integrated. Each classroom teacher must select and plan a theme study that is appropriate for his or her students. The following is one model of a planning process which is based on a concern for fulfilling the requirements of a mandated curriculum. One theme study will not cover the entire curriculum nor is it appropriate that it should do so. Theme studies can be used interchangeably with traditional,

subject area based instruction to provide teachers and students with a variety of learning experiences.

PLANNING WHEEL



Guiding Questions:

1. Is America a melting pot? What does that mean?
2. Where did the individual candles come from? What are their contributions?
3. How does knowledge about different people's culture and experience contribute to America?
4. What can we do to make the future a better place to live?

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Theme: Where Have We Come From? Where Are We Going?

CORE CURRICULUM STUDENT OUTCOMES

POSSIBLE CLASSROOM ACTIVITIES

World Studies Outcomes

-Demonstrate knowledge of cultural traditions and diversity
-Demonstrate knowledge of connections which link them to other parts of the world
-Develop respect for themselves as well as the rights and well-being of others
-Develop respect for cultural similarities and differences among people
-Construct meaning by reading and by gathering, interpreting, analyzing and summarizing information
-Use visual aids such as charts, graphs, maps and photographs
-Communicate their ideas about society, both orally and in writing
-Participate in group decision making
-Work with others to formulate and/or carry out plans

World Studies Activities

-Investigate the heritage of of each child in the classroom
-Assign groups by continent, each group member being responsible for a report including visuals, such as maps, of his or her country of heritage
-Create a new country with unique traditions
-Chart immigration trends
-Appraise the effectiveness of using appropriate social skills in cooperative group work
-Compare the demographics of the United States to that of another country
-Research the history of Ellis Island
-Identify the various ethnic groups in the classroom, the school and the community
-Identify and make family trees

Foreign Language Outcomes

-Follow simple directions (commands)
-Demonstrate understanding of concrete words, simple phrases and sentences
-Repeat and use concrete words, simple phrases and sentences in context

Foreign Language Activities

-Identify the most common languages used in the United States
-Choose a language, such as Spanish, and learn the common commands, greetings and simple phrases

-Match written word to concrete object or its visual representation
-Copy simple words, phrases and sentences

-Use simple expressions of politeness that are related to daily situations
-Participate in activities related to major holidays and special dates celebrated by children in the target culture

-Translate these foreign words to their meaning in English
-Compare the similarities and differences between Latin America and the United States
-Investigate Spanish traditions and children's games
-Read the story or biography of a Spanish-American

Technology Outcomes

-Describe the impact technology has on present day living
-Demonstrate the basic operation of a technological system
-Demonstrate the abiiity to access information in a technological system

Technology Activities

-Identify ways in which technology helps people around the world
-Create a new system of international communication
-Appraise the effectiveness of technology in communication
-Use computer and laser programs for informational as well as visual aids in oral reports
-Videotape reports

Science Outcomes

-Describe ways in which technology makes life easier
-Develop an awareness of contributions to science from cultures and individuals of diverse backgrounds

Language Arts Outcomes

Reading Outcomes:
-Integrate textual information from within sentences, and/or within a whole text, with information outside the text and with their own knowledge

Science Activities

-Investigate the contribution to science from men and women of various cultural backgrounds
-List important inventions of the last twenty years
-Analyze the importance of these inventions to people of other countries
-Brainstorm problem statements associated with international communication and understanding. Design and create unique inventions to help solve these problems.
-Write a biography of a fictional

-Formulate vocabulary meaning, concepts, themes and major and supporting ideas from within and across texts
-Recall and recognize text-based information
-Know the reader strategies and how they facilitate the construction of meaning from the text
-Meet their needs through reading for knowledge, pleasure and to perform tasks

Writing Outcomes:
-Brainstorm and web topics about which they choose to write
-Select and use an appropriate pre-writing strategy such as webbing, brainstorming, discussion, interviewing, or reading and research
Write for a variety of purposes, such as sharing information, telling personal experiences, and persuading others of their point of view
-Write in a variety of forms, such as letters, poems, reports, stories, plays and responses to literature
-Progress from invented to standard spelling
-Revise pieces based on their own "re-seeing" and on the responses of others

Listening Outcomes:
-Develop an appreciation of the contribution of the listener to the communication process
-Exhibit good attentive listening behavior
-Apply principles of listening to gain essential information

person living in the future. What would stay the same? What would be different?

Language Arts Activities

-Keep a "Facts about Countries" book in the classroom where each child can record facts he or she is learning about the country of their heritage
-Read informational texts, using expository strategies
-Read stories about people from various cultures and ethnic groups (multicultural literature)
-Read poetry written by members of other nations and use as a model for poetry writing in the classroom (Haiku is one example)
-Use cooperative groups for reading and writing assignments, focusing not only on reading and writing skills but also on speaking and listening skills
-Compare and contrast the experiences of fictional and nonfictional characters with one's own life experiences
-Create a "perfect world"; describe it in writing.
-Make a journal of ideas for future careers and aspirations

-Comprehend spoken messages

Speaking Outcomes:
-Recognize how expressive and appropriate vocal characteristics affect the communication process
-Recognize the importance of nonverbal characteristics
-Recognize that communication effectiveness can be enhanced by audiovisual materials
-Use the questioning process to help understand message

Literature Outcomes:
-Articulate that text is an expression of one person's thoughts uniquely interpreted by each reader
-Describe the purposes of narrative, informational and poetic texts
-Compare literature with one's life experiences
-Use literature as a model for composing original stories, poems and informational text

Life Management Outcomes

-Develop a positive self-concept personal and social contributions
-Be aware of, and accepting of, diversity, including race, culture, gender and handicapping conditions

Cultural and Aesthetic Awareness Outcomes

Respect and support works produced by other cultures
-Exhibit pride in self-created works of quality
Identify some creative behaviors valued by other cultures
Identify and respect the likes, dislikes and preferences of different cultures explored

Life Management, Cultural and Aesthetic Awareness, Career- and Employability based on

-Play games, learn dances and hold parties in the tradition of another country
Plan an international taste-testing party:
-Collect and record recipes
-Design and publish a recipe book
-Design and write menus, giving credit to the ethnic group and the parent who makes it
-Design and illustrate placemats- Write and publish invitations- to parents
-Have each child dress in a- costume which resembles the ethnic group he or she is the representing

within the classroom and encountered in society
-Create forms of verbal and non-verbal communication that successfully convey any combination of ideas, information and aesthetic expression

Career and Employability Outcomes

-Demonstrate honesty, integrity and respect for others
-Work as a member of a team to solve problems, identify achieve a goal
-Describe one's role as a team member and identify personal contributions to a completed project
-Explain the importance of being open and adaptable to various learning situations

-Solicit volunteers to give speeches, read poetry, perform dance or read a report to the guests at the party
-Write and publish thank you cards to those who took part in and helped prepare the taste-testing party
-Reflect on the importance of people of different backgrounds getting along in our society and throughout the world
-Appraise the value of cooperative group work alternatives and

The Arts Outcomes

-Acknowledge the existence and diversity of the arts in other cultures
-Distinguish arts from different cultures
-Explain how the arts are used in our everyday lives
-List reasons why the arts are created and/or performed
-Observe and describe different art forms
-Articulate that different people think about the arts in different ways
-Discuss what might be called "beautiful" in the arts
-Value the arts as a way to create meaning and provide unique opportunities for the expression of ideas
-Value other peoples' unique contribution to life, assessing, accepting and celebrating quality, similarities and differences

The Arts Activities

-Recognize and find examples of contributions to the arts from various cultures
-Study various art techniques
-Write about a preferred art form and prepare an example or demonstrate the art form

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Appendix A

Prerequisite Concepts and Skills

The Voyage of the Mimi Theme Study

Science

Concepts: Properties describe objects

Matter changes state

Substances may be combined to form mixtures or to form compounds

A force is any push or pull

There are six simple machines: lever, inclined plane, wedge, screw, wheel and axle, and pulley

Compound machines are made of two or more simple machines

Growing Healthy program

Skills: Introduction to computers

Social Studies

Concepts: Every community has a history

Laws and rules are made for the well-being of the group or community

Money has value because it can be used to purchase goods and services

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Skills: Basic map skills

Language Arts

English Grammer: What is a sentence?

Statements, questions, commands, and exclamations

The subject and predicate of a sentence

Nouns

Verbs

Adjectives and adverbs

Capitalization and punctuation

Pronouns

Writing: Process writing strategies

Reading Skills: Categorizing

Recognizing sequence in stories

Topic sentences

Fact and opinion

Using context clues

Cause and effect

Compare and contrast

Making predictions and drawing conclusions

Identifying story elements

Appendix B

Integrated Concepts and Skills

The Voyage of the Mimi Theme Study

Science

Concepts: Weather is the condition of the atmosphere in terms of air pressure, wind, temperature, and moisture

Living things are interdependent and constantly interacting

Ecosystems

Skills: The science process: Observing, classifying, inferring, predicting, formulating hypotheses, defining operationally, controlling variables, designing experiments, conducting experiments, interpreting, and building models

Computer Programs: Path Tactics, Island Survivors, Lunar Greenhouse, Pirate's Gold, Lost at Sea, Hurricane, Rescue Mission

Social Studies

Concepts: The Earth has many kinds of natural resources, landforms, and bodies of water

Maps and Globes can show us the location of these features on Earth

Climate varies from place to place

The activities of a community are affected by natural resources, landform, and climate

People should take care of the environment and conserve natural resources

The way of life shared by a group includes similar kinds of food, clothing, and shelter

People may borrow ways of doing things from others

Skills: Maps and Navigation

Language Arts

Writing: Letter Writing

Writing Instructions

Stories

Descriptions

Biographies

Research Reports

Reading Skills: Understanding characters and their actions

Identifying important information in a biography

Expository text strategies

Reading Novel Units: Helen Keller

Ibis the Whale

The Magic Schoolbus at the Waterworks

Shark Lady

Cyrus, the Unsinkable Sea Serpent

The Titanic